



OIPE

## RAW SEQUENCE LISTING

DATE: 09/24/2002

PATENT APPLICATION: US/10/092,947

TIME: 11:16:09

Input Set : N:\Crf4\09232002\J092947.raw  
 Output Set: N:\CRF4\09242002\J092947.raw

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1 <110> APPLICANT: WOLFF, Anne M
2   APPEL, Karen F
3   PETERSEN, Jesper F
4   POULSEN, Ulla
5   ARNAU, Jose
6   JACOBSEN, Mette D
7 <120> TITLE OF INVENTION: MUCOR RECOMBINANT GENE EXPRESSION
8 <130> FILE REFERENCE: WOLFF=3
9 <140> CURRENT APPLICATION NUMBER: US/10/092,947
10 <141> CURRENT FILING DATE: 2002-03-08
11 <150> PRIOR APPLICATION NUMBER: US 60/274,650
12 <151> PRIOR FILING DATE: 2001-03-12
13 <160> NUMBER OF SEQ ID NOS: 65
14 <170> SOFTWARE: PatentIn version 3.1
15 <210> SEQ ID NO: 1
16 <211> LENGTH: 2525
17 <212> TYPE: DNA
18 <213> ORGANISM: Mucor circinelloides
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20 <221> NAME/KEY: CDS
21 <222> LOCATION: (542)..(724)
22 <223> OTHER INFORMATION: Exon of pkar
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24 <221> NAME/KEY: misc_feature
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40 <221> NAME/KEY: Intron
41 <222> LOCATION: (1708)..(1760)
42 <223> OTHER INFORMATION: Intron of pkar
43 <400> SEQUENCE: 1

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Does Not Comply  
 Corrected Diskette Needed

PP. 4-8

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Input Set : N:\CrF4\09232002\J092947.raw  
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45	aagctttatt catttcactg gtcaacgtaa gtacatttct ctcagtttgcgtcttta	120
46	tatcatctt ttggctgctt tacgtgatga acaaaacatt atgctactaa acccagctca	180
47	gtttgagata ttcgggtgaaa gaaactattt ccataactga aaaagttaaa ccaaaaagat	240
48	atatgaaaat gatacattt cttgttcatt tgagctccat attaatcctc ttctcctcta	300
49	gttggcatgt cttttgcaa gccaaagcta cctatagctc aggtcttata gatgtatcat	360
50	cttgatctt tttgaattga ataaataaaat ttcttgtatt tttaaatgtaa acactttaat	420
51	gcctaatttgcgtgcaat gtcgtttttt tttctgtgat aaccctgaac tgctcaaatg	480
52	cttcatgtat gtcatctcat aatctgttgg gttacatcca atactgtttaa attgtatgt	540
53	ttgatcttgcgtgcaat gtcgtttttt tttctgtgat aaccctgaac tgctcaaatg	589
54	a atg atc act gac gaa cat ccg ttt gaa ttt gcg cct cag caa gat gaa	
55	Met Ile Thr Asp Glu His Pro Phe Glu Phe Ala Pro Gln Gln Asp Glu	
56	1 5 10 15	
57	tac acg cag ctg ttg aca gag tta cat aac gaa tac tgc gct gag caa	637
58	Tyr Thr Gln Leu Leu Thr Glu Leu His Asn Glu Tyr Cys Ala Glu Gln	
59	20 25 30	
60	ccatctat gat gtg ctt cag ttc tgc tcc aac ttt ttc att cgc aaa ctc	685
61	Pro Leu Asp Val Leu Gln Phe Cys Ser Asn Phe Phe Ile Arg Lys Leu	
62	35 40 45	
63	gaa gag cag cgc ttg gag cat aga aac aac cac cat tcc cgtaacaact	734
64	Glu Glu Gln Arg Leu Glu His Arg Asn Asn His His Ser	
65	50 55 60	
66	tgtttgatag taaagtgtct ctgccacgag cctagtgtat gatgctaacg ttttcctta	794
67	g ccn aat gat acc agt aat gat tta cat cct ttg tgt gag caa cca caa	843
68	Pro Asn Asp Thr Ser Asn Asp Leu His Pro Leu Cys Glu Gln Pro Gln	
69	65 70 75	
70	gaa gac ttt tca caa cag caa ggc atc cag tgg gaa acc acc acg cat atg	891
71	Glu Asp Phe Ser Gln Gln Gly Ile Gln Trp Glu Thr Thr His Met	
72	80 85 90	
73	ggc cat ccc aac gac cac ggt gct ctt cat gat gat gat gat gat gat	939
74	Gly His Pro Asn Asp His Gly Ala Leu His Asp Asp Asp Asp Pro	
75	95 100 105	
76	ttg gaa gac gaa gac gat gaa gag ttt gac aaa ttt tca act gaa cct	987
77	Leu Glu Asp Glu Asp Glu Phe Asp Lys Phe Ser Thr Glu Pro	
78	110 115 120 125	
79	ttg ccc tcg ctg cct ccc aca aac tat aac cgt ggc cgc cgc aca tct	1035
80	Leu Pro Ser Leu Pro Pro Thr Asn Tyr Asn Arg Gly Arg Arg Thr Ser	
81	130 135 140	
82	gtt aag tgc aga gag cat ggc acc cag cgc caa cca aga ctt tgt caa	1083
83	Val Lys Cys Arg Glu His Gly Thr Gln Arg Gln Pro Arg Leu Cys Gln	
84	145 150 155	
85	ggt cat cat ccc caa atc tca ggc aca agc gag cgc atc aaa gtc tcc	1131
86	Gly His His Pro Gln Ile Ser Gly Thr Ser Glu Arg Ile Lys Val Ser	
87	160 165 170	
88	atc agc aac aac ttt ttg ttt cgc aac ctg gac gaa gag cag tac ctg	1179
89	Ile Ser Asn Asn Phe Leu Phe Arg Asn Leu Asp Glu Glu Gln Tyr Leu	
90	175 180 185	
91	gat gtg gtg aat gcc atg tct gaa aag cgc gtc gtc aag ggc acc aca	1227
92	Asp Val Val Asn Ala Met Ser Glu Lys Arg Val Val Lys Gly Thr Thr	
93	190 195 200 205	

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Output Set: N:\CRF4\09242002\J092947.raw

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95	Val Ile Glu Gln Gly Ser Val Gly Asp Phe Phe Tyr Val Val Glu Ser	
96	210 215 220	
97	ggt act ttg gat tgt ttt att ggg caa aac aag gtt acc aac tat gag	1323
98	Gly Thr Leu Asp Cys Phe Ile Gly Gln Asn Lys Val Thr Asn Tyr Glu	
99	225 230 235	
100	gca ggt ggt agc ttc ggt gaa tta gcc tta atg tac aac gcc cct cgt	1371
101	Ala Gly Gly Ser Phe Gly Glu Leu Ala Leu Met Tyr Asn Ala Pro Arg	
102	240 245 250	
103	gct gct act att att aca aca tca gac tct gtg ctt tgg gct ctg gac	1419
104	Ala Ala Thr Ile Ile Thr Thr Ser Asp Ser Val Leu Trp Ala Leu Asp	
105	255 260 265	
106	aga aac act tcg gca cca tcc ttg atg gag aac acc tca cgc aaa aga	1467
107	Arg Asn Thr Ser Ala Pro Ser Leu Met Glu Asn Thr Ser Arg Lys Arg	
108	270 275 280 285	
109	cgc atg tat gaa tac ttc tta tca gaa gtc gtc ttg tta aaa tcc ctg	1515
110	Arg Met Tyr Glu Tyr Phe Leu Ser Glu Val Val Leu Leu Lys Ser Leu	
111	290 295 300	
112	gaa tca tat gaa cag cat aaa att gcg gat gcc ctc gaa tca gtt tat	1563
113	Glu Ser Tyr Glu Gln His Lys Ile Ala Asp Ala Leu Glu Ser Val Tyr	
114	305 310 315	
115	ttt gaa gat gga cag gag gtt gtg aag cag ggt gat gtc gga gat cag	1611
116	Phe Glu Asp Gly Gln Glu Val Val Lys Gln Gly Asp Val Gly Asp Gln	
117	320 325 330	
118	ttc tac atc att gaa tcc ggt gaa gcc atc gtc ctg aag gaa gag aac	1659
119	Phe Tyr Ile Ile Glu Ser Gly Glu Ala Ile Val Leu Lys Glu Glu Asn	
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121	ggc gtc cag caa cag gtg aac cag ctt gag cga gga tcc tac ttt gga	1707
122	Gly Val Gln Gln Val Asn Gln Leu Glu Arg Gly Ser Tyr Phe Gly	
123	350 355 360 365	
124	ggtaagatgg agcttggatgg ggttggatgtgtcgctaa ccactgtgtata gaa	1763
125	Glu	
126	ctg gcc ctg tta aac gat gct cct cga gct gca acc gta gtt gct cac	1811
127	Leu Ala Leu Leu Asn Asp Ala Pro Arg Ala Ala Thr Val Val Ala His	
128	370 375 380	
129	ggc aga ctc aag tgc gct aca ctg ggc aaa aag gca ttc act cgt ctt	1859
130	Gly Arg Leu Lys Cys Ala Thr Leu Gly Lys Lys Ala Phe Thr Arg Leu	
131	385 390 395	
132	ctt ggc cct gtt ttg gac atc ttg aag cgt aat tca gaa aac tat cat	1907
133	Leu Gly Pro Val Leu Asp Ile Leu Lys Arg Asn Ser Glu Asn Tyr His	
134	400 405 410	
135	gct gtc att aac cag caa tca taatcgacc aaaaagttac actagatttc	1958
136	Ala Val Ile Asn Gln Gln Ser	
137	415 420	
138	aaataaaaaac catggataact ttccgatctg atgttgactt gactgtaaca aagcgacagg	2018
139	aaaaagaaac ttgatttgct tcctgaccaa caatgcagcc aatctcctta aacaagatgc	2078
140	tctcttatttc ggcctgaaaa tataacctcc ttgatttcgt attttgktgt tgtgttttt	2138
141	tccctctctc tctcttcttc ttttcaactt ttttataaaaaaaaatatgac gggatgatt	2198
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Input Set : N:\Crf4\09232002\J092947.raw  
Output Set: N:\CRF4\09242002\J092947.raw

143 atctgcctgg cacaggtatt gccaatctac caaatcaaag acacaagatt gttccaaaaa 2318  
144 atggcgccaa tttcaccatc atggtttggtaa gtaagacata tgtatacttg caagtgaaag 2378  
145 gaccaggtaa ctgaattttg ctttaggtgaa tcgggtgtcg gaaaaacaac ctttgtaaac 2438  
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Pro Leu Asp Val Leu Gln Phe Cys Ser Asn Phe Phe Ile Arg Lys Leu  
162 35 40 45  
Glu Glu Gln Arg Leu Glu His Arg Asn Asn His His Ser Pro Asn Asp  
164 50 55 60  
Thr Ser Asn Asp Leu His Pro Leu Cys Glu Gln Pro Gln Glu Asp Phe  
166 65 70 75 80  
Ser Gln Gln Gln Gly Ile Gln Trp Glu Thr Thr His Met Gly His Pro  
168 85 90 95  
Asn Asp His Gly Ala Leu His Asp Asp Asp Asp Pro Leu Glu Asp  
170 100 105 110  
Glu Asp Asp Glu Glu Phe Asp Lys Phe Ser Thr Glu Pro Leu Pro Ser  
172 115 120 125  
Leu Pro Pro Thr Asn Tyr Asn Arg Gly Arg Arg Thr Ser Val Lys Cys  
174 130 135 140  
Arg Glu His Gly Thr Gln Arg Gln Pro Arg Leu Cys Gln Gly His His  
176 145 150 155 160  
Pro Gln Ile Ser Gly Thr Ser Glu Arg Ile Lys Val Ser Ile Ser Asn  
178 165 170 175  
Asn Phe Leu Phe Arg Asn Leu Asp Glu Glu Gln Tyr Leu Asp Val Val  
180 180 185 190  
Asn Ala Met Ser Glu Lys Arg Val Val Lys Gly Thr Thr Val Ile Glu  
182 195 200 205  
Gln Gly Ser Val Gly Asp Phe Phe Tyr Val Val Glu Ser Gly Thr Leu  
184 210 215 220  
Asp Cys Phe Ile Gly Gln Asn Lys Val Thr Asn Tyr Glu Ala Gly Gly  
186 225 230 235 240  
Ser Phe Gly Glu Leu Ala Leu Met Tyr Asn Ala Pro Arg Ala Ala Thr  
188 245 250 255  
Ile Ile Thr Thr Ser Asp Ser Val Leu Trp Ala Leu Asp Arg Asn Thr  
190 260 265 270  
Ser Ala Pro Ser Leu Met Glu Asn Thr Ser Arg Lys Arg Arg Met Tyr  
191  
192

delete - "n" is only shown  
in a nucleotide  
sequence

Please  
delete  
any  
similar  
errors  
in subsequent  
sequences

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Input Set : N:\Crf4\09232002\J092947.raw  
Output Set: N:\CRF4\09242002\J092947.raw

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197												310		315		320	
198	Gly	Gln	Glu	Val	Val	Lys	Gln	Gly	Asp	Val	Gly	Asp	Gln	Phe	Tyr	Ile	
199										325		330		335			
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201								340		345			350				
202	Gln	Gln	Val	Asn	Gln	Leu	Glu	Arg	Gly	Ser	Tyr	Phe	Gly	Glu	Leu	Ala	
203								355		360		365					
204	Leu	Leu	Asn	Asp	Ala	Pro	Arg	Ala	Ala	Thr	Val	Val	Ala	His	Gly	Arg	
205								370		375		380					
206	Leu	Lys	Cys	Ala	Thr	Leu	Gly	Lys	Lys	Ala	Phe	Thr	Arg	Leu	Gly		
207								385		390		395		400			
208	Pro	Val	Leu	Asp	Ile	Leu	Lys	Arg	Asn	Ser	Glu	Asn	Tyr	His	Ala	Val	
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240	1									5		10		15			
241	tcg	cct	tca	tct	caa	aca	arn	atg	gac	gat	ttt	gaa	atc	aaa	cag	cca	
242	W-->	W-->	Ser	Pro	Ser	Ser	Gln	Thr	Xaa	Met	Asp	Asp	Phe	Glu	Ile	Lys	Pro

48

96